



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,513	07/25/2001	Nicholas P. Harberd	620-157	4244

7590 06/19/2002

NIXON & VANDERHYE P.C.
8th Floor
1100 North Glebe Road
Arlington, VA 22201-4714

EXAMINER

MEHTA, ASHWIN D

ART UNIT PAPER NUMBER

1638

DATE MAILED: 06/19/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,513

Applicant(s)

HARBERD ET AL.

Examiner

Ashwin Mehta

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-69 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 49-69 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/117,853.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.5 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/117,853, now U.S. Patent No. 6,307,126, filed on 12 August 1998.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: the declaration indicates that the invention titled "NUCLEIC ACID ENCODING GAI GENE OF ARABIDOPSIS THALIANA" and having Attorney Docket No. 620-45 (U.S. Serial No. 09/117,853) was filed as PCT International Application No. PCT/GB97/00390. However, the declaration also improperly indicates that benefit is also claimed to PCT application PCT/GB97/00390 under 35 U.S.C. 120/365.

Specification

3. The specification fails to comply with the sequence rules of 37 CFR 1.821-1.825. The sequences on page 37, lines 21 and 22 should be referred to by sequence identifiers. The sequences in Figures 3, 4, and 6 should also be referred to by their sequence identifiers within the brief descriptions of those drawings on page 34.

Art Unit: 1638

Claim Objections

4. Claims 50, 55-58 and 60-68 are objected to.

In claim 50, line 2, the term "which" seems to be missing after "polypeptide of."

In claim 55, line 1, "An" should be --The--.

In claims 56 and 57, line 1, "Nucleic" should be replaced with --The nucleic--.

In claim 58, line 2, the article --the-- should be inserted before "nucleic."

In claims 60-62 and 64-66, line 1, "A" should be replaced with --The--.

In claim 63, line 1, "a cell" should read --the cell--.

In claim 67, "a plant cell" should read --the plant cell--.

In claim 68, line 2, the article --the-- should be inserted before "nucleic."

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1638

5. Claims 49-69 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,307,126 ('126). Although the conflicting claims are not identical, they are not patentably distinct from each other because: Claims 1-3 of '126 are directed towards a nucleic acid isolate comprising a nucleotide sequence coding for a polypeptide comprising the amino acid sequence of SEQ ID NO: 2. Claims 4-20 of '126, all of which are dependent on parent claim 1, are directed towards the nucleic acid isolate comprising a regulatory sequence for expression from said nucleotide sequence, or a nucleic acid vector including the nucleic acid isolate for transformation into a plant cell, host cells containing the nucleic acid, plants and plant parts comprising plant host cells, methods of producing the plant host cells by transformation, method of producing a plant comprising regenerating a plant from the plant host cell, or said method including sexually or asexually propagating off-spring of the regenerated plant, and a method of influencing plant growth and delayed flowering, comprising causing or allowing expression from said nucleic acid isolate within cells of a plant, wherein said nucleic acid isolate is heterologous to the plant. The amino acid sequence set forth in SEQ ID NO: 2 of '126 and the instant application are identical. Instant claim 49 is drawn to isolated nucleic acids comprising a nucleotide sequence coding for polypeptides that have at least 90% amino acid sequence identity with SEQ ID NO: 2. Nucleotide sequences encoding SEQ ID NO: 2 obviously fall within the scope of instant claim 49, which therefore encompasses claims 1-3 of '126. That is, patented claims 1-3 are species of the genus of isolated nucleic acids encompassed by the instant claims. Instant claim 52 is drawn to an isolated nucleic acid that hybridizes strongly to a nucleic acid encoding SEQ ID NO: 2, which obviously encompasses the complement of SEQ ID NO: 2. As the property of inhibiting

Art Unit: 1638

plant growth upon expression in plants, wherein the inhibition is antagonized by GA, and the property of complementing the phenotype of resistance to the dwarfing effect of paclobutrazol of GAI null mutants, are inherent to SEQ ID NO: 2, the nucleic acid isolates of the patented claims also fall within the scope of instant claims 50, 51, 53, and 54. Claim 52-54 are drawn to isolated nucleic acids that hybridize to a nucleic acid encoding SEQ ID NO: 2, which encompass complements of the nucleic acid isolates of the patented claims and are therefore obvious. Further regarding claims 52 and 53: the claims indicate that expression of the hybridizing nucleic acid results in the stated effects, which are properties of SEQ ID NO: 2. As it is the complement of the hybridizing nucleic acid that is the coding strand which would encode the protein having these properties, it is not clear that Applicants actually intended these claims to be drawn towards isolated nucleic acids that hybridize strongly to the complement of a nucleic acid encoding SEQ ID NO: 2 (see the rejection under 35 U.S.C. 112, 2nd paragraph, below). Note that if Applicants amend the claims to reflect this and to overcome the indefinite rejection, that the isolated nucleic acids would then encompass the patented nucleic acid isolates of '126. Instant claims 55-69, dependent on parent claim 49, encompass the scope of claims 2-20 of '126. The scope of the claims of the instant application and '126 are therefore not patentably distinct.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1638

6. Claims 50 and 52-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 50 and 53: the term “antagonised” in line 5 of claim 50 and line 4 of claim 53 render the claims and those dependent thereon indefinite. It is not exactly clear what is meant by this term, and it renders the metes and bounds of the claims unclear. It is suggested that the term be replaced with --reversed-- or --overcome--.

In claim 52: the term “is” in line 2 renders the claims indefinite. The claim does not clearly indicate whether it is the isolated nucleic acid, or the nucleic acid that the isolated nucleic acid hybridizes to, that encodes the amino acid sequence of SEQ ID NO: 2. It is suggested that the term be replaced with --as--.

In claims 52-54: the recitation “An isolated nucleic acid that hybridizes strongly” in line 1 renders the claims and those dependent thereon indefinite. It is not clear what is meant by “hybridizes strongly,” and therefore the isolated nucleic acids that the claims are directed to are not clear. It is not clear what defines a strongly hybridizing nucleic acid as opposed to one that weakly hybridizes, for example. The metes and bounds of the claims are not clear. Further, claims 53-54 indicate that expression of the hybridizing nucleic acid in a plant results in inhibition of growth, or complements a GAI null mutant phenotype. However, these are properties of SEQ ID NO: 2, and the isolated nucleic acid of the claims hybridize to a nucleic acid that encodes SEQ ID NO: 2. It would be the complement of the hybridizing nucleic acid that would be the coding strand. It is therefore not clear that Applicants actually intended for the claims to be directed to the complement of the hybridizing nucleic acid, since the currently

Art Unit: 1638

claimed nucleic acids would not code for a protein having the stated properties. If Applicants did intend for claims 53 and 54 to be drawn to the coding strand, then it is suggested that the claims be amended to indicate that the isolated nucleic acid hybridizes to the complement of a nucleic acid encoding SEQ ID NO: 2.

In claims 59 and 69: there is improper antecedent basis for the recitation "heterologous nucleic acid according to any one of claims 49 to 54". It is suggested that the claims be amended to indicate that the nucleic acid according to any one of claims 49 to 54 is heterologous to said host cell or plant.

In claim 62: in line 2, the recitation "derivative of a plant" renders the claim indefinite. It is not clear that what is considered to be a "derivative" of a plant. The metes and bounds of the claim are not clear.

Further in claim 69: the recitation "causing or allowing expression" in line 3 renders the claim indefinite. It is not clear what is meant by "causing or allowing expression" of the nucleic acid, since a promoter would necessarily be operably linked to the nucleic acid sequence, and expression of the nucleic acid would then occur without further input or actual method steps once the nucleic acid is within the plant cell. It is suggested that lines 3 and 4 of claim 69 be replaced with the recitation --expressing said nucleic acid according to any one of claims 49 to 54 within cells of the plant, wherein said nucleic acid is heterologous to said plant--.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 49 and 52-69 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are broadly drawn towards any isolated nucleic acid having a nucleotide sequence coding for a polypeptide having at least 90% amino acid sequence identity with SEQ ID NO: 2; or wherein the plant is *Arabidopsis thaliana*; or any isolated nucleic acid that hybridizes strongly to a nucleic acid coding for SEQ ID NO: 2; or wherein expression of the hybridizing nucleic acid in a plant results in inhibition of growth of the plant, the inhibition being antagonized by gibberellin, or wherein the plant is *A. thaliana*; or wherein expression of the hybridizing nucleic acid complements a *GAI* null mutant phenotype in a plant, wherein the phenotype is resistant to the dwarfing effect of paclobutrazol, or wherein the plant is *A. thaliana*; or said nucleic acid further comprising a regulatory sequence for expression; a nucleic acid vector for plant cell transformation, comprising said nucleic acid; a host cell comprising said nucleic acid; a plant or plant part comprising said host cell wherein the host cell is a plant cell; a method of producing a plant host cell comprising said nucleic acid, by transformation; or said method further comprising regenerating a plant from the plant cell; a method of influencing plant growth and flowering time in any manner in a plant, comprising causing or allowing expression from said nucleic acid within cells of said plant.

The specification indicates that the genomic clone of the *Arabidopsis* Gibberellin Insensitive (*GAI*) gene was isolated (page 34, line 25 to page 38, line 9). The amino acid

Art Unit: 1638

sequence of GAI is set forth in SEQ ID NO 2, and the nucleotide sequence encoding it is set forth in SEQ ID NO: 1. The specification indicates that plant growth and development is regulated by gibberellin (GA), that the *gai* mutation in Arabidopsis confers a dwarf phenotype, and that the response of the mutant to GA is reduced. This phenotype indicates that *gai* is a dominant gain-of-function mutation and that wild-type GAI may act as a plant growth repressor whose activity is antagonized by GA (page 2, line 2 to page 3, line 2).

However, the specification does not describe isolated nucleic acids that encode polypeptides that have 90% amino acid identity with SEQ ID NO: 2 and which retain its functional activity. The specification indicates that the *gai* mutant protein differs from the 532 amino acid wild-type protein in that a 17 amino acid domain has been deleted (page 2, lines 21-24; page 38, lines 21-25). While 17 amino acids have been deleted, the *gai* mutant still shares greater than 90% amino acid identity with SEQ ID NO: 2. It is then apparent that nucleotide sequences encoding polypeptides that have at least 90% amino acid identity with SEQ ID NO: 2 do not all possess the functional activity of SEQ ID NO: 2. The structure of the claimed nucleic acids are then not correlated with the function of SEQ ID NO: 2. Claim 49 encompasses isolated nucleic acids that encode polypeptides that have 90% sequence identity with SEQ ID NO: 2, but can have any function. The only function described in the specification for SEQ ID NO: 2 is that of repressing plant growth, wherein the repression is overcome by GA. SEQ ID NO: 2 is also described to complement the resistance to paclobutrazol displayed by GAI null mutants. The specification does not describe other functions for SEQ ID NO: 2. The specification also admits that searches of DNA and protein sequence databases did not reveal obvious functional domains of significance within GAI (page 38, lines 19-21). The specification then fails to describe

changes that can be made to SEQ ID NO: 2 that would not affect its functional activity or disrupt functional domains. Further, the claims encompass isolated nucleic acids that can hybridize strongly to SEQ ID NO: 2. However, the term “strongly” does not define the conditions of the hybridization, and the claims therefore encompass unrelated nucleic acids of any structure and any function that hybridize to nucleotide sequences encoding SEQ ID NO: 2. The specification does not describe any functional activity encoded by the isolated nucleic acids encompassed by claim 52. Further, claims 53 and 54 as currently written are drawn to isolated nucleic acids hybridize to nucleic acids that encode SEQ ID NO: 2. The hybridizing nucleic acid would then be analogous to the complement of the nucleic acid encoding SEQ ID NO: 2, and would not encode a protein having the stated properties. The specification does not describe the complement of nucleic acids encoding SEQ ID NO: 2 as having the same functional activity. See Fiers vs. Sugarno, 25 USPQ 2d (CAFC 1993) at 1606, which states that “[a]n adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself”. Given the breadth of the claims encompassing a multitude of isolated nucleic acids that encode polypeptides that share at least 90% sequence identity to SEQ ID NO: 2 or which hybridize strongly to nucleotide sequences that encode SEQ ID NO: 2, and lack of guidance of the specification as discussed above, the specification fails to provide an adequate written description of the multitude of nucleic acids encompassed by the claims.

8. Claims 49-69 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for SEQ ID NO: 2 and a method of inhibiting plant growth and delaying

Art Unit: 1638

flowering time comprising expressing SEQ ID NO: 2 in cells of a plant wherein SEQ ID NO: 2 is heterologous to the plant, and plant and bacterial host cells, does not reasonably provide enablement for isolated nucleic acids having a nucleotide sequence encoding a polypeptide that has 90% identity to SEQ ID NO: 2, or methods to influence plant growth and flowering time in any other manner, or other types of host cells. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The claims are broadly drawn towards any isolated nucleic acid having a nucleotide sequence coding for a polypeptide having at least 90% amino acid sequence identity with SEQ ID NO: 2; or wherein expression of said nucleic acid in a plant results in inhibition of growth of the plant wherein the inhibition is antagonized by GA, or wherein expression of said nucleic acid complements the resistance to the dwarfing effect of paclobutrazol of GAI null mutants, or wherein said is *Arabidopsis thaliana*; or any isolated nucleic acid that hybridizes strongly to a nucleic acid coding for SEQ ID NO: 2; or wherein expression of the hybridizing nucleic acid in a plant results in inhibition of growth of the plant, the inhibition being antagonized by gibberellin, or wherein the plant is *A. thaliana*; or wherein expression of the hybridizing nucleic acid complements a GAI null mutant phenotype in a plant, wherein the phenotype is resistant to the dwarfing effect of paclobutrazol, or wherein the plant is *A. thaliana*; or said nucleic acid further comprising a regulatory sequence for expression; a nucleic acid vector for plant cell transformation, comprising said nucleic acid; a host cell comprising said nucleic acid; a plant or plant part comprising said host cell wherein the host cell is a plant cell; a method of producing a plant host cell comprising said nucleic acid, by transformation; or said method further

comprising regenerating a plant from the plant cell; a method of influencing plant growth and flowering time in any manner in a plant, comprising causing or allowing expression from said nucleic acid within cells of said plant.

As discussed above, the specification teaches the isolation of the genomic clone of the Arabidopsis GAI protein. Plant growth and development is regulated by gibberellin (GA). In Arabidopsis the *gai* mutation confers a dwarf phenotype and the response of the mutant to GA is reduced. This indicates that *gai* is a dominant gain-of-function mutation and that wild-type GAI may act as a plant growth repressor whose activity is inhibited by GA. The specification teaches that the *gai* mutant protein differs from the 532 amino acid wild-type protein in that a 17 amino acid domain has been deleted. The specification also teaches that the chemical paclobutrazol reduces endogenous GA levels and confers a dwarf phenotype on plants exposed to it, and that a GAI null mutant, *gai-t6*, displays paclobutrazol resistance (page 46, lines 23-27; page 47, lines 4-5).

However, the specification does not teach isolated nucleic acids having a nucleotide sequence encoding a polypeptide having at least 90% sequence identity with SEQ ID NO: 2 which inhibit the growth of a plant when expressed therein, wherein the inhibition is antagonized by GA, or which complements the resistance to the dwarfing effect of paclobutrazol of GAI null mutants, other than nucleotide sequences that encode SEQ ID NO: 2. While the specification teaches the 17 amino acids that are deleted within the *gai* mutant, it does not teach what changes can be made to SEQ ID NO: 2 that would not affect its functional activity. The specification admits that searches of DNA and protein sequence databases did not reveal obvious functional domains of significance within GAI (page 38, lines 19-21). In the absence of further guidance,

Art Unit: 1638

undue experimentation would be required by one skilled in the art to determine how the amino acid sequence of SEQ ID NO: 2 may be changed to yield proteins that have 90% identity with SEQ ID NO: 2 and which retain its functional activity. Claims 49 and 52 also broadly encompasses nucleotide sequences encoding polypeptides that are 90% identical to SEQ ID NO: 2, or which hybridize to nucleic acids encoding SEQ ID NO: 2, but which can have any function. The specification does not teach any of those functions, and it is therefore not clear how one would use all of the isolated nucleic acids encompassed by the claims. Further, the specification provides no teaching of nucleotide sequences that hybridize strongly to the complement of a nucleic acid encoding SEQ ID NO: 2 and which have its functional activity. It is unclear what hybridization conditions are encompassed by “hybridizes strongly.” As any two nucleic acids can hybridize to one another given the appropriate conditions, the claims encompass unrelated nucleotide sequences. In the absence of further guidance, undue experimentation would be required by one skilled in the art to determine those stringency conditions that one should use to isolate the claimed nucleic acids. See Genentech, Inc. V. Novo Nordisk, A/S, 42 USPQ2d 1001, 1005 (Fed. Cir. 1997), which teaches that “the specification, not the knowledge of one skilled in the art” must supply the enabling aspects of the invention. Further, as discussed above, it is noted that the isolated nucleic acids of claims 53 and 54 would hybridize to the strand coding for SEQ ID NO: 2, and could not therefore themselves encode a protein having the stated properties.

Regarding the method of claim 69: as discussed, the specification teaches that GAI is a plant growth repressor, and therefore the only effect on plant growth as a result of the method would be repressing growth. The specification also teaches that Arabidopsis *gai* mutant plants show delayed flowering under short day conditions and that severe mutants did not flower at all,

Art Unit: 1638

and that plants overexpressing GAI remain vegetative until given GA to induce flowering (page 23, lines 5-8). The specification does not teach that plant growth and flowering time is affected by GAI overexpression in transgenic plants in any other manner. It is suggested that claim 69 be amended to indicate the claimed method results in transgenic plants having repressed plant growth and delayed flowering as compared to plants that do not comprise the claimed isolated nucleic acids. Further regarding claim 59: the specification does not teach how one would use non-plant host cells, with the exception of bacterial cells, which are routinely used to store nucleotide sequences of interest, or in the case of *Agrobacterium*, to transfer nucleotide sequences of interest into plant cells. As the claimed nucleic acids encode a protein involved in plant growth and development, it is not obvious, in the absence of further guidance, how one skilled in the art would use non-plant host cells comprising the claimed isolated nucleic acids. It is suggested that claim 59 be amended to indicate that the host cell is a plant cell or bacterial cell. Given the breadth of the claims encompassing isolated nucleic acids having a nucleotide sequence encoding a polypeptide that has 90% identity to SEQ ID NO: 2, or having any functional activity, or methods to influence plant growth and flowering time in any other manner besides inhibiting growth and delaying flowering time, or non-plant and non-bacterial host cells, unpredictability of the art and lack of guidance of the specification as discussed above, undue experimentation would be required by one skilled in the art to make and use the claimed invention.

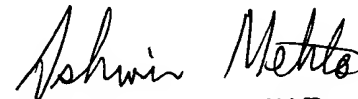
9. No claim is allowed.

Art Unit: 1638

Contact Information

Any inquiry concerning this or earlier communications from the examiner should be directed to Ashwin Mehta, whose telephone number is 703-306-4540. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:00 A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at 703-306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 and 703-872-9306 for regular communications and 703-872-9307 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

A.M.
June 17, 2002


ASHWIN D. MEHTA, PH.D
PATENT EXAMINER